



DONGFENG CUMMINS ENGINE
PERFORMANCE CURVE

Engine Model
EQB160-20

Curve No.
FR91362

CPL Code
8555

Date
June

Displacement:5.9L

Bore: 102mm

Stroke: 120mm

Fuel System: Boxu VE Pump

Cylinders: 6 Cylinders, in Line

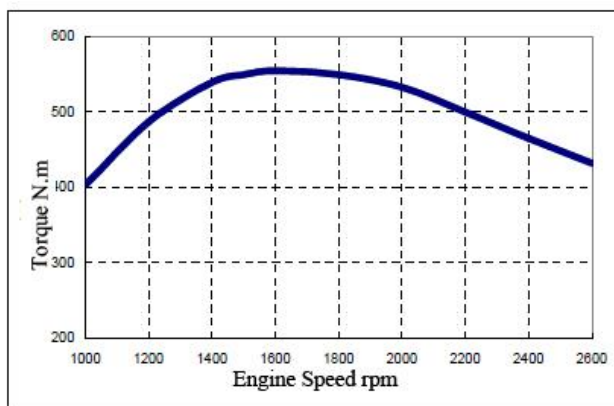
Advertised Power:118kW@2600 rpm

160HP@2600 rpm

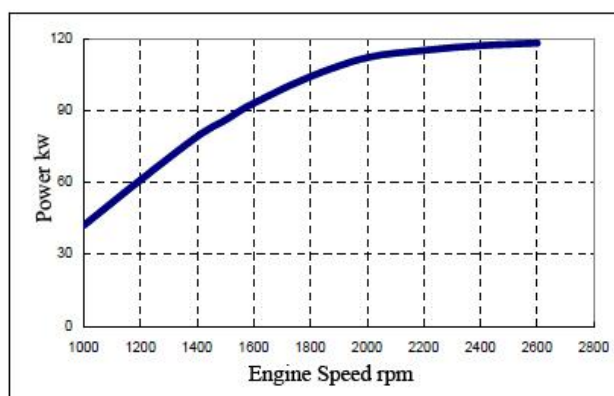
Peak Torque: 550N.m@1600rpm

Aspiration: Turbocharged & Inter-cooled

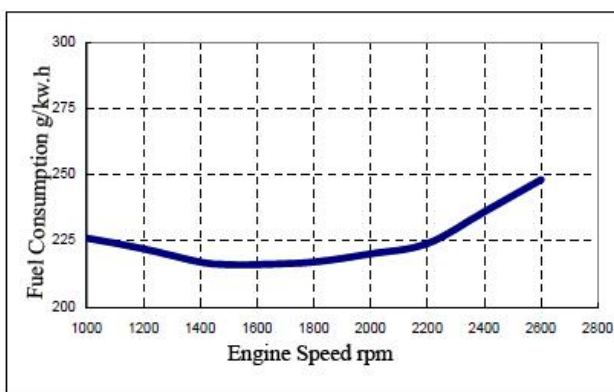
Rating Type: Continuous



Torque	
rpm	N.m
1000	403
1200	487
1400	540
1500	550
1600	555
1800	550
2000	533
2200	500
2400	465
2600	432



Power	
rpm	kW
1000	42
1200	61
1400	79
1500	86
1600	93
1800	104
2000	112
2200	115
2400	117
2600	118



Fuel Consumption	
rpm	g/kW.h
1000	226
1200	222
1400	217
1500	216
1600	216
1800	217
2000	220
2200	224
2400	236
2600	248

Performance data obtain under normal conditions, according to GB/T18297-2001 test conditions

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Diesel Engine for Vehicle Performance Data

Technical Request

Aspiration:	Turbocharged & Inter-cooled
Emission Certification	GB17691/GB14761
Net Weight(Dry)-Engine Only-Average:	409kg
Net Weight(Dry)-Engine with Heat Exchanger-Average	433kg
Compression Ratio:	17.3:1
Distance from Center of Gravity to the Front Engine Block	328mm
Distance from Center of Gravity to the Crankshaft Centerline	155mm
Maximum Bending Moment at Rear Face of Block	1356 N.m
Limit load of Thrust Bearing:	
Instantaneous maximum:	3781 N
Continuous maximum	1780 N
Instantaneous inertia at Rotating: (without Flywheel)	0.25kg.m2

Performance Characteristic

Idle Speed:	750rpm
Maximum non-load speed:	2950rpm
Over speed performance(within 15 seconds):	4200rpm
Maximum Altitude at Continuous Operation:	3000m
The clutch torque @ 800rpm:	350N.m
When install exhaust braking:	
The limit exhaust pressure of Turbocharger export @3100 rpm	414 kPa
Maximum power of Exhaust brake	112kw

Engine Speed (RPM)	Oil Pressure (kPa)	Air Pressurized		Exhaust Flow (m ³ /min)	Exhaust Temperature (°C)	Fuel Consumption (kg/h)	Heat Energy Loss	
		Flow (kg/min)	Pressure kPa				Coolant (KW)	Air (KW)
2600	400	16.7	140	40.6	500	35.3	64	24
1500	350	9.41	80	23	520	22.4	43	16.5

Engine Model: EQB160-20
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All values within ±5%.

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Diesel Engine for Vehicle Performance Data

LUBRICATION SYSTEM

Oil Sump Capacity:

Upper Limit: 14.2L

Lower Limit: 12.4L

Capacity of the whole system: 16.4 L

AIR SYSTEM

Air intake maximum temperature rise from Outside to the Turbocharger 15°C

The allowable maximum restriction when use Dry Air Filter

Medium: kPa (mmH2O) 2.9(300)

Heavy: kPa (mmH2O) 3.7(380)

The allowable maximum restriction when use dirty Filter Element: kPa (mmH2O) 6.2(635)

TURBOCHARGED & INTERCOOLED

Environment design parameters	Stage II	Stage III
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The highest temperature of intake manifold:	55°C	50°C
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Temperature after the cooling of the intercooler	25°C	20°C
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The maximum allowable cold pressure difference before and after the intercooler:	16.7(125) kPa(mmHg)	
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The allowable minimum diameter of the intake manifold:	75mm	
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EXHAUST SYSTEM

The maximum exhaust resistance with exhaust manifold and muffler: kPa(mmHg)	10.0(75)
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The allowable minimum diameter of the exhaust manifold:	75mm
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FUEL SYSTEM

The maximum resistance of Fuel Pump when use clean filter	150mmHg
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Maximum fuel return oil resistance:	520mmHg
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COOLING SYSTEM

Engine Coolant Capacity:	9.0 L
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The range of temperature adjustment for the Thermostat:	83-95 °C
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The maximum pressure of Coolant(without pressure cap and thermostat closed)	276kPa
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The highest coolant temperature (at engine exports):	100°C
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Maximum degassing time	25mins
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Maximum coolant flow to accessories	41 L/min
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The lowest coolant temperature	70°C
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Minimum speed of water-filling	19 l/min
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Minimum coolant expansion volume relative to the system capacity	6 %
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Water tank capacity without water expansion	5 L	
Minimum allows pressure of pressure cap:	50 kPa	
The alarm temperature of the coolant	100°C	
The open temperature of louver	N/A	
Cooling ability of cooling system:	Stage II	Stage III
The limit environmental temperature at rated speed	45 °C	42 °C
The limit environmental temperature at peak torque	40°C	37°C
24V ELECTRICAL SYSTEM		
Maximum resistance of starting circuit	0.002Ω	
The cold start current when engine and the clutch separate: CCA	12V 500	24V 250
COLD STARTING SYSTEM		
The lowest cold starting temperature without auxiliary starting device	-10°C @120rpm	
The lowest cold starting temperature with starting device	-25°C @ 110rpm	
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<i>All data is subject to change without notice- contact Cummins for most recent data.</i>		